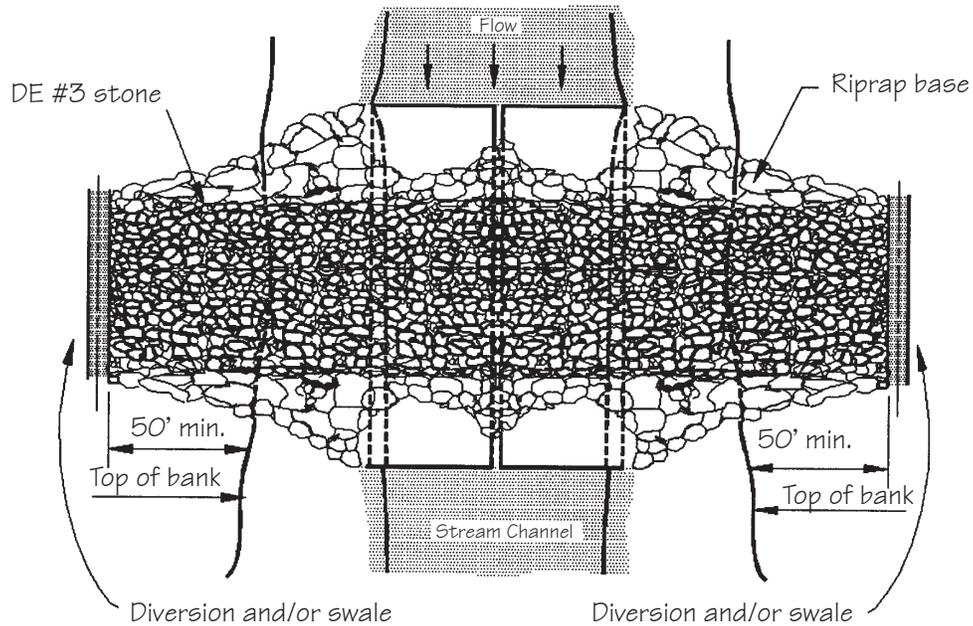
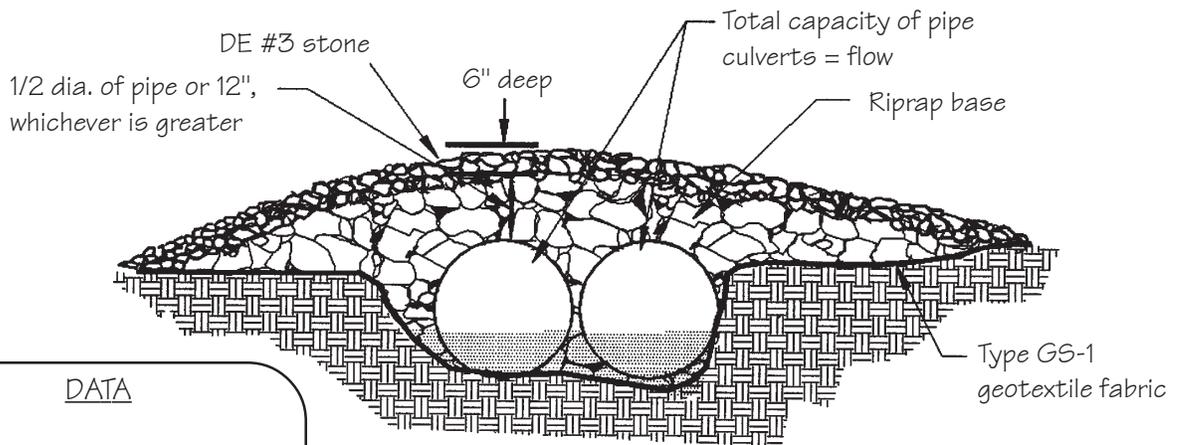


Standard Detail & Specifications

Temporary Crossing - Culvert



Plan



Typical Section

DATA

- Pipe diameter (D)
- Number of pipes (No.)
- Pipe material & thickness
- Riprap size (R No.)

Source:

Adapted from
VA ESC Handbook

Symbol:

TC-C

Detail No.

DE-ESC-3.5.1.1

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Standard Detail & Specifications

Temporary Crossing - Culvert

Construction Notes:

1. **Restrictions** - No construction or removal of a temporary access culvert will be permitted from March 15 through June 15 to minimize interference with fish spawning and migration. Further restrictions may apply in accordance with other State and/or Federal permits.
2. **Installation**
 - a. **Culvert Length** - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet length.
 - b. **Geotextile** - Type GS-1 geotextile shall be placed so as to cover the streambed and extend minimum six inches and a maximum one foot beyond the end of the culvert prior to installing the bedding material. Geotextile fabric reduces settlement and improves crossing stability.
 - c. **Culvert Placement** - The invert elevation of at least 1 (one) culvert shall be installed 1 (one) foot below the natural streambed grade to minimize interference with fish migration.
 - d. **Culvert Protection** - The culvert(s) shall be covered with a minimum of one foot of riprap with a 6 inch top layer of coarse aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill.
 - e. **Stabilization** - All areas disturbed during culvert installation shall be stabilized within 14 calendar days in accordance with the Standard and Specifications for Temporary Vegetative Stabilization.
3. **Maintenance**
 - a. **Inspection** - Periodic inspection shall be performed to ensure that the culverts, stream bed, and streambanks are not damaged, and that sediment is not entering the stream or blocking fish passage or migration.
 - b. **Maintenance** - Maintenance shall be performed as needed, in a timely manner to ensure that structures are in compliance with this standard and specification. This shall include removal and disposal of any trapped sediment or debris. Sediment shall be disposed of and stabilized outside the waterway floodplain.
4. **Restoration**
 - a. **Removal** - When the crossing has served its purpose, all structures including culverts, bedding and filter cloth materials shall be removed within 14 calendar days. In all cases, the culvert materials shall be removed within one year of installation.
 - b. **Final Clean-up** - Final clean-up shall consist of removal of the temporary structure from the waterway, removal of all construction materials, restoration of original stream channel cross section, and protection of the streambanks from erosion. Removed materials shall be stored outside of the waterway floodplain.
 - c. **Method** - Removal of the structure and clean up of the area shall be accomplished without construction equipment working in the waterway channel.
 - d. **Final Stabilization** - All areas disturbed during culvert removal shall be stabilized within 14 calendar days in accordance with the Standard and Specifications for Permanent Vegetative Stabilization.

Source:

Adapted from
VA ESC Handbook

Symbol:

TC-C

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DE-ESC-3.5.1.1

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